

CONDUCT OF ENVIRONMENT, SAFETY, AND HEALTH SURVEILLANCES

1.0 Purpose

This instruction provides guidance to Brookhaven Site Office (BHSO) staff on planning, conducting, and documenting environmental, safety, and health (ESH) surveillances of the Management and Operating (M&O) Contractor facilities and activities, including subcontractors, at Brookhaven National Laboratory (BNL).

Operational awareness includes knowledge derived from analysis of information obtained from various non-assessment activities. ESH surveillances are a subset of operational awareness activities and are part of the BHSO oversight and assurance process. BHSO performs surveillances to:

- Maintain operational awareness of contractor work performance against established expectations,
- Monitor and evaluate laboratory programs, practices, management systems, and assurance systems for effective performance, including requirements compliance,
- Identify vulnerabilities, and
- Provide objective and periodic input for the annual BHSO contract evaluation.

The selection and planning of surveillances are based on facility and activity hazards, risks, and past performance. Potential selection and planning input could also come from Department of Energy (DOE) occurrence and nonconformance tracking system (NTS) reports, nonconformance reports, Radiological Awareness Reports, quarterly reports, previous assessments and surveillances, and contractor staff observations/recommendations. For the selection and planning of surveillances, Integrated Safety Management (ISM) performance is a key factor which provides the overall framework for the selection/planning process. See Appendix 1 of Reference 3.1 for the Risk Evaluation Methodology.

NOTE

- This instruction is written to cover surveillances as a general operational awareness process. While there may be differences between surveillances and assessments, at times those differences may be minimal or imperceptible. Surveillances may become complex, detailed, in depth reviews (i.e., approaching or meeting the level of an assessment) as the surveillance activity moves forward.
- Compared to assessments, surveillances are not necessarily limited or bounded by a formal scope. Surveillance observations may be completed in minutes (e.g., walk-through inspection of a small portion of a facility; review of a simple procedure at a job site (work observation)) or may take weeks to complete should complex issues be identified.

2.0 Definitions

- 2.1 Assurance Systems – Collectively, all aspects of the processes and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation.
- 2.2 Corrective Action - A measure taken to rectify and prevent recurrence of conditions that adversely affect quality and mission accomplishments.
- 2.3 Corrective Action Plan - A list of the completed, on-going and long-term actions associated with each identified issue. The extent of the detail for a corrective action plan should be determined based on the significance, impact, number and complexity of the problems and corrective actions to resolve the issues.
- 2.4 Factual Accuracy Review - Refers to reviewing the correctness of what is written including any objective evidence and conclusions.
- 2.5 Finding - An identified inadequacy with implementation of a requirement.

Findings are categorized as levels 1, 2, or 3. This categorization is necessary to identify the degree of management formality and rigor required for the correction, tracking to closure, and trending of findings.

- Level 1 Finding
These are issues of major significance that warrant a high level of attention on the part of line management. Typically these reflect a gap in addressing requirements; or a systemic or programmatic problem or breakdown with implementing the requirements. If left uncorrected, this level of finding could negatively impact the adequacy of operations and/or accomplishment of the DOE Office of Science (SC) mission.
- Level 2 Finding
These are issues that represent a non-conformance and/or deviation with implementation of a requirement. Multiple issues at this level, when of a similar nature, may be rolled-up together into one or more Level 1 Findings.
- Level 3 Finding
These are issues where it is recognized that improvements can be gained in process, performance, or efficiency already established for meeting a requirement. This level of finding should also include minor deviations observed during oversight activities that have been promptly corrected on the spot and verified as completed.

- 2.6 Finding, Observation, and Noteworthy Practice Numbering – Each finding, observation, and noteworthy practice associated with a surveillance will be identified using the following protocol:

[YY/MM (Year/Month) Approximate Surveillance Begin Date] –

[BHSO Surveillance Leader Initials] -

[Chronological FY Surveillance Number Performed by Surveillance Leader] -

[Finding (F) Level (1, 2, or 3) or Observation (O) or Noteworthy Practice (NP)] -

[Unique Chronological Number Beginning with 01]

For example—

- The second surveillance in FY 2008 performed by a particular Surveillance Leader whose initials are CP;
- The surveillance began in June; and
- There was one level 2 finding, two level 3 findings, one observation, and one noteworthy practice.

These could be identified as:

0806-CP-S2-F3-01

0806-CP-S2-O-02

0806-CP-S2-F2-03

0806-CP-S2-NP-04

0806-CP-S2-F3-05

- 2.7 Functional Area - A discrete group of related safety and support programs.
- 2.8 Issue - An identified finding or observation.
- 2.9 Noteworthy Practice - A positive observation, based on objective assessment data, of a particular practice, procedure, process, or system considered so unique or innovative enough that the entire BNL Department, BNL-site, or DOE-complex might find it beneficial. Mere compliance with mandatory requirements is not considered to be a noteworthy practice. Consideration should be given for including the noteworthy practice details into BNL and/or DOE lessons learned databases.
- 2.10 Objective Evidence - Something that exists which proves or validates a position or conclusion that is not influenced by emotion or prejudice, can be based on corroborated observation (by credible persons), is documentable, is verifiable, and may be quantitative.
- 2.11 Observation - A condition or practice that does not provide or promote effective protection of the health and safety of the public or DOE's workers or the environment, but is not a violation of regulations, DOE Orders, or site-specific requirements. Formal corrective actions may not be required but observations require dispositioning and a response.

- 2.12 Operational Awareness - The aggregate of routine monitoring of contractor work performance by line management through facility tours, walk-through inspections, work observation, document reviews, compliance submittals, meeting attendance and participation, and on-going interaction with contractor management, employees, and support staff.
- 2.13 Oversight - Activities performed to determine whether processes, programs, and management systems, including assurance and oversight systems, are performing effectively and/or complying with requirements. Oversight programs include operational awareness and assessments that involve evaluation of the contractor.
- 2.14 Requirement - ES&H criteria, parameters, or tests to which the quality or effectiveness of performance can be measured. Requirements are contained in regulations, standards, codes, policies, procedures, and objectives. Requirements can be mandatory, as required by the contract between DOE and M&O, or non-mandatory, as required by established best management practices or consensus standards.
- 2.15 Surveillance - Surveillances include walk-through inspections, work observations, facility tours, and document and record reviews.

Walk-Through Inspections – Walk-through inspections are for the purpose of establishing a “snapshot” of performance. Specifically, this includes measuring work progression against budget and schedule, the extent of compliance with established requirements, and interacting with management and staff for determining their understanding of their roles and responsibilities for accomplishing the work. Walk-through inspections are more general than Work Observations. An example of a walk-through inspection includes the routine review of a facility or parts of a facility for overall requirements compliance.

Work Observations - Work observations are a focused evaluation of performance to verify that a specific activity is effective at complying with established requirements. Work observations are more specific than Walk-through inspections. Examples of work observations include observing a job site and job activities for compliance with requirements and practices. The scope and breadth of the work observation may include several job sites at the same or different facilities.

Facility Tours – Facility tours are regular tours of the facilities and projects by BHSO line managers with or without their contractor counterparts. Facility tours allow for gaining general knowledge of mission and purpose, as well as establishing a general understanding of performance. Examples of facility tours include the routine BHSO management tours.

Document and Record Reviews – The review of documents and records can be a direct indicator of performance. Analysis of documents and records can ascertain information on work performance and

requirements compliance. A balance should be established between the review of documents and records and time in the field conducting walk-through inspections, work observations, and facility tours. Comparison of what is learned from both field time and document and record reviews can validate the knowledge gained from each. Document and record reviews may be included in other types of surveillance (i.e., walk-through inspections, work observations, and facility tours) as well as a stand-alone review.

The selection and planning of surveillances are based on facility and activity hazards, risks, and past performance. Potential selection and planning input could also come from DOE occurrence and NTS reports, nonconformance reports, Radiological Awareness Reports, quarterly reports, previous assessments and surveillances, and contractor staff observations/ recommendations. For the selection and planning of surveillances, ISM performance is a key factor which provides the overall framework for the selection/planning process. See Appendix 1 of Reference 3.1 for the Risk Evaluation Methodology.

Surveillances may include a combination of personnel interviews, document reviews, and work observations. The surveillance leader determines the depth and detail (i.e., graded approach) required for the surveillance. Though not required, a surveillance checklist may be prepared to ensure the intent (i.e., reason why the surveillance is being performed) of the surveillance is met (see References 3.7, 3.9, and 3.10). The surveillance should relate to one or more of the five ISM core functions.

The surveillance leader needs to make various decisions concerning a surveillance. These decisions are discussed in the following paragraphs and include:

- Whether to prepare a written surveillance report in addition to including the surveillance information in the BHSO Corrective Action Program Database-Assessments/Surveillances,
- Whether to request a contractor factual accuracy review or not, and
- Whether to transmit the finalized written surveillance report or BHSO Corrective Action Program Database-Assessments/Surveillances information to the contractor or not.

All surveillances are required to be documented in the BHSO Corrective Action Program Database-Assessments/Surveillances (even if no findings, observations, or noteworthy practices were identified) and would include items such as participants, locations visited, work observed, and issues (if any). However, a written surveillance report may also be necessary. The written surveillance report would include similar information included in the BHSO Corrective Action Program Database-Assessments/Surveillances. The decision for needing to document the surveillance in a written report is based on surveillance leader judgment. The surveillance leader should start with the premise that the surveillance will include a written report (i.e., the default is that a written report will be prepared) and decide or judge downwards to a

threshold where a written report is not necessary. Written surveillance report decision judgment factors may include:

- Complexity of the issues
- Impact on facility or program mission
- Public safety and health
- Public perception
- Worker safety & health
- Significance of issues
- Repeat or recurring issues
- The need for formal response and/or corrective action plan.

Generally, the higher or more significant consequences of the above factors would lead towards determining that a written surveillance report is needed. A secondary decision factor to consider includes the contractor's actions and position after being initially verbally informed of the surveillance results. The contractor taking (or not taking) a proactive approach to the initial verbal results may weigh in on the documentation decision. However, this is only a secondary decision factor.

The surveillance leader determines the need for any contractor factual accuracy review of the BHSO Corrective Action Program Database-Assessments/ Surveillances information or written surveillance report using similar decision judgment factors as above. If a factual accuracy is needed, the surveillance leader shall ensure appropriate instructions are provided to the contractor for responding to the factual accuracy.

The surveillance leader determines whether the finalized surveillance report or BHSO Corrective Action Program Database-Assessments/ Surveillances information is transmitted to the contractor. If a surveillance report was written, the report should be sent to the contractor even if no response is required. The reason being that during the documenting decision making process, some judgment factor was significant enough that caused the surveillance leader to determine a written surveillance report was necessary. This alone is enough for transmitting the final surveillance report to the contractor.

The surveillance leader may determine to transmit the BHSO Corrective Action Program Database-Assessments/Surveillances information to the contractor if a written surveillance report was not prepared. The information transmitted should be similar to that in the BHSO Corrective Action Program Database-Assessments /Surveillances or convey a similar understanding. Any required action by the contractor should be clearly stated.

For a written surveillance report, the surveillance leader shall include the surveillance report (i.e., the information in the written report), including any issues, in the BHSO Corrective Action Program Database-Assessments/ Surveillances and provide the BHSO database coordinator a copy of the surveillance. The surveillance leader is responsible for ensuring the adequacy of any contractor response to the surveillance and for tracking and verifying the closure of issues and corrective actions as appropriate.

There will be occasions where walk-through inspections, work observations, facility tours, and document and record reviews are performed but do not meet the Purpose (Section 1.0) of this instruction nor the Definitions (Section 2.0) of these activities. Examples may include minor follow-up on items that previously did not warrant a surveillance; insufficient or inadequate objective evidence; or actions performed through some other programmatic avenue (e.g., letter, personal logs).

- 2.16 Surveillance Plan – The surveillance plan is a requirement for Operations Management Division (OMD) staff and includes the projected surveillance (e.g., walk-through inspections, work observations, facility tours, documents and record reviews) schedule for the fiscal year. The surveillance plan may be prepared using information gained from the BHSO oversight and assurance processes and considers BNL facility and activity hazards, risks, and past performance, especially as they relate to ISM. Potential surveillance selection and planning input could come from DOE occurrence and NTS reports, nonconformance reports, Radiological Awareness Reports, quarterly reports, previous assessments and surveillances, and contractor staff observations/recommendations. Surveillances may be planned and coordinated by individuals or teams. However, each OMD staff member prepares their own surveillance plan. The intent of the surveillance should be included in the plan.

The surveillance plan is required to be signed by the plan owner and signed and approved by the OMD Director. If changes (deletions or substitutions) are needed to the plan following approval, a new plan will be prepared with signatures and OMD Director approval. The approved surveillance plan does not preclude performing surveillances in addition to the ones in the plan--such as on an as needed or for cause basis. These additional surveillances do not require prior OMD Director approval and do not require revising the plan. Appendix 4 provides a sample surveillance plan.

- 2.17 Surveillance Leader or Lead - The ESH Subject Matter Expert/Authority or Facility Representative designated to coordinate and conduct the surveillance.

3.0 References

- 3.1 BHSO-OA-01, *Conduct of Environment, Safety, and Health (ESH) Assessments*
- 3.2 BHSO-OA-05, *Stop Work and Facility Shutdown*
- 3.3 BHSO-OA-23, *OMD Database Usage*
- 3.4 DOE Order O 5480.19, *Conduct of Operations Requirements for DOE Facilities*
- 3.5 Contract No. DE-AC02-98CH10886, Latest Revision
- 3.6 DOE Policy P 226.1, *Department of Energy Oversight Policy*
- 3.7 DOE Order O 226.1A, *Implementation of Department of Energy Oversight Policy*
- 3.8 DOE Standard 1063-00, *Facility Representatives*
- 3.9 *Operations Assessment Field Handbook*, EM-25, June 1994

- 3.10 DOE Facility Representative Web-Site Surveillance Guides:
<http://www.hss.energy.gov/deprep/facrep>
- 3.11 DOE Office of Science Management System (SCMS): *Quality Assurance and Oversight Management System*
- 3.12. DOE SCMS: *Operational Awareness Subject Area*

4.0 Responsibilities

- 4.1 Operations Management Division (OMD) Director or designee
 - Maintains a centralized file of all surveillance reports.
 - Maintains awareness of surveillance activities.
 - Reviews and approves all written surveillance reports.
 - Reviews and approves OMD surveillance plans, including changes.
 - Ensures OMD personnel are aware of the requirements of this procedure.
 - Maintains this procedure.
- 4.2 OMD Staff
 - Conduct and document surveillances per this procedure.
 - Resolves and closes issues per this procedure.
 - Prepares and follows an OMD Director approved surveillance plan each fiscal year. Deletions or substitution to the plan are OMD Director approved.
 - Keeps the OMD Director informed of the status of all surveillances (written and BHSO Corrective Action Program Database-Assessments/Surveillances based).
 - Provides finalized written surveillance reports to the BHSO database coordinator.

5.0 Procedure

- 5.1 Planning of Surveillances
 - 5.1.1 See *Surveillance* and *Surveillance Plan* in Section 2, Definitions. Each OMD staff member prepares and follows an OMD Director approved surveillance plan each fiscal year. Deletions or substitutions to the plan are OMD Director approved. Surveillances can also be performed as needed or for cause. Appendix 4 provides a sample surveillance plan.
- 5.2 Conduct of Surveillances

CAUTION

- 1) If unsafe conditions are identified during the surveillance, the BHSO participants shall immediately contact the work supervisor and, if needed, direct suspension of work activities in accordance with BHSO procedures. DOE work suspensions shall be promptly reported to BHSO management. See Reference 3.2.
- 2) The contractor shall be requested to evaluate any unsafe conditions for reportability against DOE and the contractors reporting criteria (i.e., Occurrence Report (ORPS), Radiological Awareness Report (RAR). Price Anderson Act (PAAA) Reportable Noncompliance, etc.)

- 5.2.1 If more than one BHSO staff participates in the surveillance, one will be designated the surveillance leader. If only one BHSO staff participates, that person is designated the surveillance leader. In general, contractor management or staff do not need to be notified before conducting surveillances. As determined by the surveillance leader, before beginning a surveillance, contractor management may be informed of the surveillance. For awareness purposes, appropriate BHSO staff (OMD Director, cognizant Facility Representative and/or Subject Matter Expert/Authority) shall be informed of the surveillance.
- 5.2.2 Perform the surveillance per the guidance in Appendices 1 and 2 and the References.
- 5.2.3 The surveillance leader shall periodically keep appropriate BHSO staff (OMD Director, cognizant Facility Representative and/or Subject Matter Expert/Authority) and contractor cognizant staff and management informed of the surveillance status, as necessary.

5.3 Documentation, Communicating, and Processing of Surveillance Results

- 5.3.1 All surveillances are documented in the BHSO Corrective Action Program Database-Assessments/Surveillances.
- 5.3.2 Based on the judgment factors in Section 2, *Surveillance*, and Appendix 1, the surveillance leader determines whether the surveillance will be documented in a written surveillance report; and/or require a contractor factual accuracy review; and/or communicated to the contractor.

NOTE

For both written surveillance report and BHSO Corrective Action Program Database-Assessments/Surveillances information, each should include similar content and comprehensiveness.

For documentation of surveillances in the BHSO Corrective Action Program Database-Assessments/Surveillances, follow Section 5.3.3, *BHSO Corrective Action Program Database-Assessments/Surveillances*. For documentation in a written surveillance report, follow Section 5.3.4, *Written Surveillance Reports*.

- 5.3.3 BHSO Corrective Action Program Database-Assessments/Surveillances
 - i) The surveillance leader with input from team members shall record specific activities reviewed and any Issues and Noteworthy Practices in the BHSO Corrective Action Program Database-Assessments/Surveillances using the guidance in Appendix 2.
 - ii) Contractor facility or site management review of draft surveillance information for factual accuracy before finalization is

optional. The decision to have a factual accuracy review rests with the surveillance leader. Factors which determine the need for a factual accuracy review may include the judgment factors (see Section 2, *Surveillance*, and Appendix 1) or others. The draft surveillance information may be transmitted electronically to the appropriate contractor personnel along with instructions for the factual accuracy review.

iii) Following the resolution of any contractor factual accuracy comments and changes to the BHSO Corrective Action Program Database-Assessments/Surveillances information, the surveillance leader informs the OMD Director of completion.

iv) If the finalized BHSO Corrective Action Program Database-Assessments/Surveillances information is to be communicated to the contractor, the surveillance leader ensures the information is addressed to the appropriate contractor facility and/or site management. Instructions must be provided to the contractor for actions, if any, the contractor is required to take in response to the surveillance (e.g., development of corrective actions, time frames, milestones, etc). The surveillance leader informs the OMD Director whether the surveillance information was communicated with the contractor.

v) The surveillance leader is responsible for approving, tracking and verifying the closure of issues and corrective actions as appropriate.

5.3.4. Written Surveillance Report

i) The surveillance leader with input from team members shall record specific activities reviewed and any Issues and Noteworthy Practices in a draft written surveillance report using the guidance in Appendices 2 and 3.

ii) Contractor facility or site management review of the draft written surveillance report for factual accuracy before finalization is optional. The decision to have a factual accuracy review rests with the surveillance leader. Factors which determine the need for a factual accuracy review may include the judgment factors (see Section 2, *Surveillance* and Appendix 1). The draft surveillance report may be transmitted electronically or in hard copy to the appropriate contractor personnel along with instructions for the factual accuracy review.

iii) Following the resolution of any contractor factual accuracy comments and changes to the draft surveillance report, the surveillance leader and team members (Participants) sign the report. The OMD Director then reviews and signs the report.

iv) If the surveillance report is to be communicated to the contractor, the surveillance leader prepares a cover letter for the surveillance report addressed to the appropriate facility and/or site management. The cover letter will include instructions for actions, if any, the addressee is required to take in response to the surveillance (e.g., development of corrective actions, time frames, milestones, etc). The OMD Director shall sign the cover letter.

v) The surveillance leader shall include the surveillance report and any issues in the BHSO Corrective Action Program Database-Assessments/Surveillances and provide the BHSO database coordinator a copy of the surveillance.

vi) The surveillance leader is responsible for approving, tracking and verifying the closure of issues and corrective actions as appropriate per the BHSO Corrective Action Management Procedure (when issued).

5.4. Contractor Response and Follow-Up

- 5.4.1 The surveillance leader, with input from surveillance team members, reviews any required contractor response to the surveillance report for adequacy. The surveillance leader can reject the contractor response if it is determined to be inadequate. If the contractor's response is rejected, the surveillance leader shall request a revised response from the contractor. This request for a revised response shall be in writing and include the reasons for the rejection.

When an acceptable contractor response is received, the contractor will be informed in writing.

6.0 Appendices

- 6.1 Appendix 1 - Surveillance Flowchart
- 6.2 Appendix 2 - Preparation of Surveillance Information (BHSO Corrective Action Program Database-Assessments/Surveillances and Written Report)
- 6.3 Appendix 3 - Written Surveillance Report Template
- 6.4 Appendix 4 - Surveillance Plan (Sample)

END

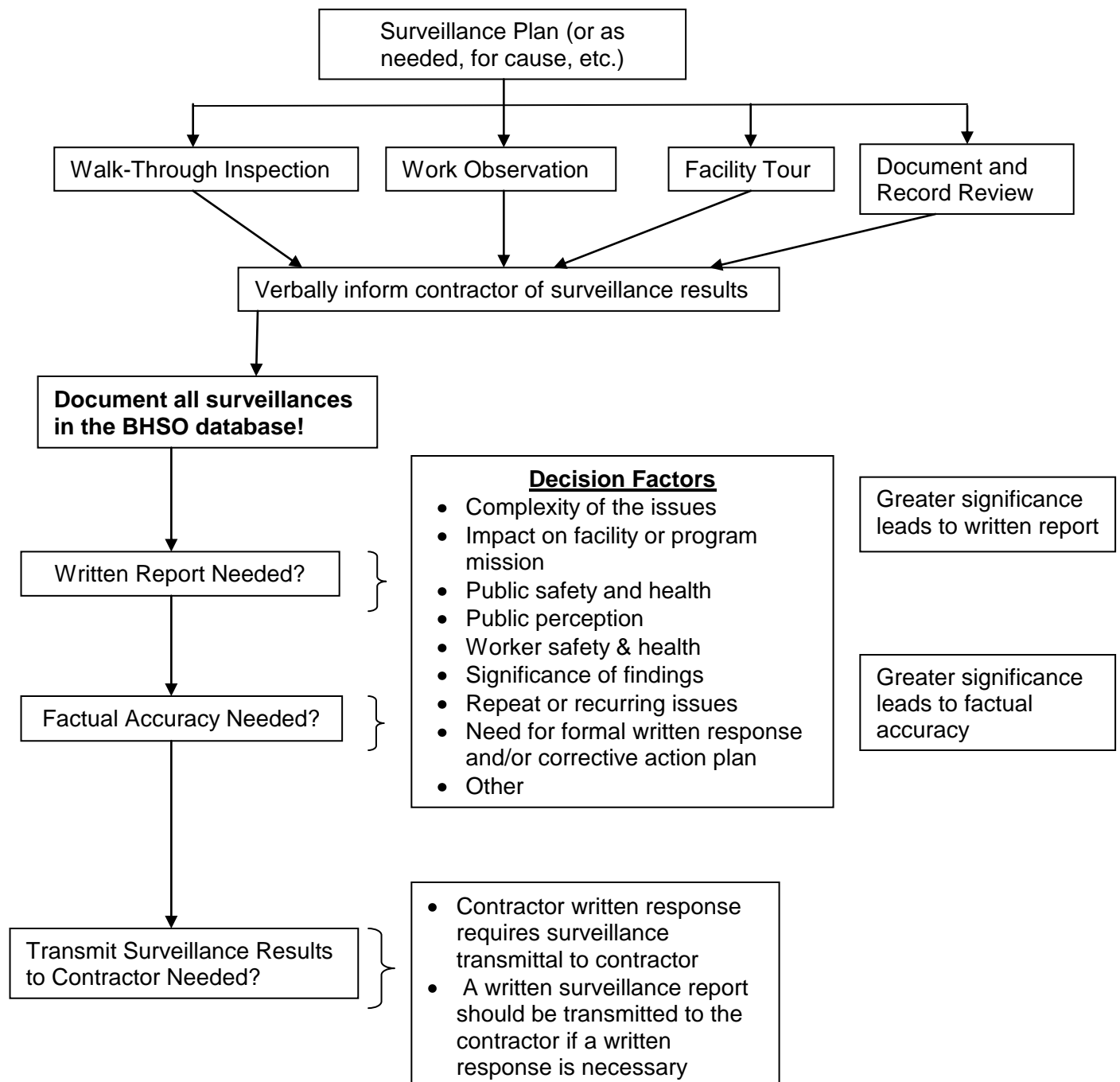
Preparer: _____ Date: _____

Procedure Coordinator: _____ Date: _____

Division Director: _____ Date: _____

Deputy Site Manager: _____ Date: _____

Appendix 1 Surveillance Flowchart



Appendix 2

Preparation of Surveillance Information (BHSO Corrective Action Program Database-Assessments/Surveillances and Written Report)

The following information should be included in both the BHSO Corrective Action Program Database-Assessments/Surveillances and written surveillance report.

- Facility: Identify the facility(ies) where the surveillance was performed.
- Dates Performed: From beginning to end of field and document inspection activities.
- Participants: BHSO personnel who assisted in the surveillance.
- Subject and Surveillance Type: Walk-Through Inspection; Work Observation; Facility Tour; Document and Records Review

Note

The following section headings may be necessary for a complex surveillance. For less complex surveillances, the following section headings may be appropriately combined as long as the general ideas presented below are captured. For example, a simple surveillance may include only two headings such as Inspection Summary and Conclusions. The order of the headings may also be changed to best suit the objective.

Introduction

Provide background information such as what activity was observed, why the surveillance was performed, facility conditions, or other information that helps put the surveillance in context.

Inspection Summary

Describe what was observed during the surveillance, for example, worker activities, interviews, procedures/documents used by workers, etc.

Inspection Details

Identify each specific finding, observation, and noteworthy practice.

Conclusions

Provide the results of the activity based on what was observed. BHSO recommendations may also be presented here.

Signatures (for written surveillance report)

Include signature of BHSO Participants and OMD Director.

Appendix 3

Written Surveillance Report Template - (See Appendix 2 Note)

OMD Surveillance	Facility:	Date(s) Performed:	Participant(s):
Subject/Surveillance Type:			

INTRODUCTION

INSPECTION SUMMARY

INSPECTION DETAILS

Findings

Observations

Noteworthy Practices

CONCLUSIONS

Recommendations

Participant: _____ Date: _____
Name Signed

Participant: _____ Date: _____
Name Signed

OMD Director: _____ Date: _____
Name Signed

Appendix 4

FY XXXX Surveillance Plan (Sample)

Plan Owner (Name (Print)):_____ (Signature/Date): _____

OMD Director Approval (Signature/Date):_____

Surveillance Title & Intent/Remarks	Lead/ Participants
<u>1st Quarter:</u> Title: C-AD Work Planning Based on previously identified inadequate work planning activities in 2004 ISM Assessment: --Review 2 C-AD jobs—one in progress and one completed. All 5 ISM core functions --Corrective action verification and effectiveness of corrective actions 1, 2, and 3 of the 2004 ISM assessment concerning work permits. Work Authorization and Feedback/Improvement ISM core functions.	Kelley
<u>2nd Quarter:</u> Title: C-AD Emergency Preparedness --Corrective action verification and effectiveness taken in response to 2/4/07 C-AD fire. Develop/Implement Hazard Controls ISM core function.	Kelley/Granzen
<u>3rd Quarter:</u> Title: Magnet Division Lockout and Tagout Based on newly implemented Magnet Division lockout/tagout (LOTO) procedure OPM 9.9: --Review 2 jobs with LOTO--one in progress and one completed. Verify LOTO procedure implementation. All 5 ISM core functions.	Kelley
<u>4th quarter:</u> Title: C-AD Training Program Based on 5/3/07 C-AD injury concerning machine guarding: --Corrective action verification and effectiveness associated with occurrence report. Perform Work Within Controls ISM core function.	Kelley

NOTE: Changes (deletions or substitutions) to the plan requires OMD Director approval.